

**Amendments of the Claim:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (Previously Presented): A method for virtually simulating actual networked applications within a network simulation, comprising the steps of:

    providing a networked application code and a client interface which communicates with the network application code;

    providing a network simulator that simulates a network of communicating nodes;

    providing a server that interfaces to the network simulator, the server comprising functionality for establishment of a bidirectional mapping of communications of said networked application code to a simulated node in the network simulator the client interface being aware of the server and communicating with the server over a network; the network simulator being able to interoperate with the server such that communication to the networked application code from the server appears to originate from the simulated node to which the networked application code is mapped; and

    modifying, via the client interface and the server, the networked application code by removing or inserting messages to or from simulated nodes.

Claim 2 (Previously Presented): A method for virtually simulating actual networked applications within a network simulation, comprising the steps of:

    initiating a server to interface to a network simulator;

    initiating a client interface to interface with the server over a network, the client interface communicating with a networked application code;

    bridging the networked application code via the client interface so that the network application code can communicate with the server;

    mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node; and

insertion of and extraction of messages or packets from the networked application code to the simulated node, or from the simulated node to the networked application code, via the client interface and the server.

Claim 3 (Previously Presented): The method as recited in claim 2 wherein the step of initiating a server further comprises the step of establishing bidirectional mapping of the networked application code to the simulated node in the network simulator.

Claim 4 (Original): The method as recited in claim 1 wherein the network simulator is IP based.

Claim 5 (Original): The method as recited in claim 4 wherein the network simulator further comprises an upper layer protocol.

Claim 6 (Original): The method as recited in claim 5; wherein the protocol is selected from the group consisting of TCP and UDP upper layer protocols.

Claim 7 (Currently Amended): The method as recited in claim 1 wherein the networked application code utilizes a communication style selected from the group consisting of point-to-point, anycast, multicast and broadcast.

Claim 8 (Original): The method as recited in claim 1 wherein the network simulator comprises a plurality of network simulators.

Claim 9 (Original): The method as recited in claim 1 wherein the server comprises a plurality of servers.

Claim 10 (Previously Presented): The method as recited in claim 1 wherein the mapping of networked application code to the simulated node is dynamic.

Claim 11 (Original): The method as recited in claim 1 wherein the network simulator executes in real-time.

Claim 12 (Original): The method as recited in claim 1 wherein the execution time of the network simulator is configurable.

Claim 13 (Previously Presented): The method as recited in claim 1 wherein the client interface and the server are implemented on separate hardware.

Claim 14 (Previously Presented): The method as recited in claim 2 wherein the networked application code is executed in parallel over a distributed system.

Claim 15 (Original): The method as recited claim 2 wherein the network simulator is IP based.

Claim 16 (Previously Presented): The method as recited in claim 15 wherein the network simulator further comprises a protocol selected from the group consisting of TCP and UDP upper layer protocols.

Claim 17 (Cancelled)

Claim 18 (Previously Presented): The method as recited in claim 2 wherein the networked application code further utilizes a communication style selected from the group consisting of point-to-point, anycast, multicast and broadcast.

Claim 19 (Original): The method as recited in claim 2 wherein the network simulator comprises a plurality of network simulators.

Claim 20 (Previously Presented): The method as recited in claim 2 wherein the server comprises a plurality of servers.

Claim 21 (Previously Presented): The method as recited in claim 2 wherein the mapping of the networked application code to simulated network node is dynamic.

Claim 22 (Original): The method as recited in claim 2 wherein the network simulator executes in real-time.

Claim 23 (Original): The method as recited in claim 2 wherein the execution time of the network simulator is configurable.

Claim 24 (Previously Presented): The method as recited in claim 2 wherein the client interface and the servers are implemented on separate hardware.

Claim 25 (Previously Presented): The method as recited in claim 2 wherein the networked application code is executed in parallel over a distributed system.

Claim 26 (Original): The method as recited in claim 1 wherein the server is a plug in to the simulator.

Claim 27 (Original): The method as recited in claim 2 wherein the server is a plug in to the simulator.

#### Claims 28-30 (Cancelled)

Claim 31 (Previously Presented): The method of claim 1, wherein the client interface includes a plurality of client interfaces and the networked application code includes a plurality of networked application codes, each client interface associated with at least one of the plurality of networked application codes.

Claim 32 (Previously Presented): The method of claim 2, wherein the client interface includes a plurality of client interfaces and the networked application code includes a

plurality of networked application codes, each client interface associated with at least one of the plurality of networked application codes.

Claim 33 (Previously Presented): A computer system for virtually simulating actual networked applications within a network simulation comprising:

    a plurality of clients, each client having a client interface, the client interface communicating with an associated networked application code executing on the client;

    a network simulator including a plurality of simulated nodes;

    a server, the server having functionality for interfacing to the network simulator;

    and wherein each client communicates with the server over a network,

    and wherein each client executes the networked application code and the client interface so that the networked application code can communicate with the server,

    and wherein the client interface maps the networked application code to one of the simulated nodes so that communication from the networked application code now appears to originate from the simulated node, and inserts and extracts messages or packets from the networked application code.

Claim 34 (Previously Presented): The system according to claim 33, wherein server has functionality for providing message or packet transfer among simulated nodes and/or networked application codes.